**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of: **Walton et al.**
Confirmation No.: **4497**
Application No.: **09/932,042**
Group Art Unit: **1724**
Filing Date: **August 17, 2001**
Examiner: **C.T. Barry**
For: **A Method for Reducing Hydrogen Sulfide Emissions from Wastewater**

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Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

## APPLICANTS' COMMENTS ON EXAMINER'S STATEMENT OF REASONS FOR ALLOWANCE

In response to the Notice of Allowance, Applicants respectfully submit the following comments on the Examiner's Statement of Reasons for Allowance.

Preliminarily, Applicants note with appreciation the Notice of Allowance of pending claims 1-7, 9, 11, 14-16, 19, and 20 mailed March 12, 2004 in connection with the above-referenced application in view of the amendment of claim 1 to recite "wherein, in said method, no nitrate ion is added to said wastewater stream." Thus, as amended, claim 1 recites a method for reducing the evolution of hydrogen sulfide vapors within a sanitary sewer system wherein the addition of nitrate ion to the wastewater stream for the purpose of reducing the evolution of hydrogen sulfide vapors within the sanitary sewer system is excluded.

The Examiner states that "nitric acid is well-known to be a strong base." (Notice of Allowability, page 2). Applicants disagree. Indeed, nitric acid is a known strong acid (see, e.g., http://www.efma.org/Publications/nitricacid/section03.asp, already of record).

The Examiner further states that it would have been improper hindsight analysis to conclude that anhydrous nitric acid could be substituted for the nitric acid solution suggested by the Hamaguchi reference (U.S. Patent No. 6,495,096). Applicants assert that, even if anhydrous nitric acid were used in the process described by the Hamaguchi reference, the anhydrous nitric acid would dissociate to produce nitrate ion upon addition to the wastewater. Thus, the claim limitation "wherein, in said method, no nitrate ion is added to said wastewater stream" excludes the addition of nitrate ion in the form of anhydrous nitric acid in the claimed method for the purpose of reducing the evolution of hydrogen sulfide vapors within the sanitary sewer system.

The Examiner asserts that Weber *et al.* (*WEF Specialty Conference Series Proceedings*, Odor and Volatile Organic Compound Emission Control for Municipal and Industrial Wastewater Treatment Facilities, April 24-27, 1994, 2-1 – 2-12) ("the Weber reference") describes a method for reducing the evolution of hydrogen sulfide vapors within a sanitary sewer system by adding an iron salt to a wastewater stream in which there is hydrogen sulfide volatilization to produce free iron ions which react with hydrogen sulfide to form iron (II) sulfide; and intentionally adding chlorine gas to the wastewater stream downstream of the iron salt addition to regenerate free iron ions. (Notice of Allowability, page 3.) Applicants strongly disagree with this characterization of the Weber reference. Nowhere in the reference is there a teaching or suggestion of the use of an oxidant to regenerate iron ion within the wastewater stream. The objective of the method described by the Weber reference is point source control of hydrogen sulfide evolution. Insufficient chlorine gas is added according to the Weber process to regenerate iron ions as presently claimed. Indeed, a person of skill in the art would have understood that the amount of oxidant to be added according to the Weber process was to be minimized in an effort to reduce the cost thereof. Accordingly, the Weber reference has no bearing on the present claims.

Entrance of this paper in the file for the present application is respectfully requested.

Respectfully submitted,

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